

Claims

[c1] WHAT IS CLAIMED IS:

1. An oscillating motor for a camshaft adjusting device, the oscillating motor comprising:
a stator and a rotor mounted so as to be rotatable relative to one another;
wherein the stator has an inner wall and radially extending stator vanes connected to the inner wall;
wherein the rotor has a base member and radially extending rotor vanes connected to the base member;
wherein the rotor vanes have an end face, respectively, resting against the inner wall of the stator;
wherein the stator vanes have an end face, respectively, resting against a peripheral wall of the base member;
wherein the rotor vanes taper discontinuously from the end face of the rotor vanes, respectively, in a direction toward the base member so that the rotor vanes each have a widened section at the end face, respectively.

[c2] 2. The oscillating motor according to claim 1, wherein the widened section tapers radially inwardly toward the base member.

[c3] 3. The oscillating motor according to claim 1, wherein

the widened section extends across at least one third of a radial length of the rotor vanes.

- [c4] 4. The oscillating motor according to claim 1, wherein the widened section has lateral surfaces converging from the end face of the rotor vanes toward the base member.
- [c5] 5. The oscillating motor according to claim 4, wherein the lateral surfaces of the widened sections are planar.
- [c6] 6. The oscillating motor according to claim 4, wherein the rotor vanes have a radially inwardly positioned section, respectively, wherein the lateral surfaces of the widened sections are positioned at an obtuse angle relative to lateral surfaces of the radially inwardly positioned section of the rotor vanes.
- [c7] 7. The oscillating motor according to claim 6, wherein the lateral surfaces of the radially inwardly positioned section are approximately parallel to one another.
- [c8] 8. The oscillating motor according to claim 6, wherein the widened section has a width at the end face matching approximately 1.5 to 3 times a width of the radially inwardly positioned section.
- [c9] 9. The oscillating motor according to claim 6, wherein the lateral surfaces of the widened section pass arc-

shaped into the lateral surfaces of the radially inwardly positioned section.

- [c10] 10. The oscillating motor according to claim 6, further comprising recesses provided at a transition from the lateral surfaces of the radially inwardly positioned section into the lateral surfaces of the widened section.
- [c11] 11. The oscillating motor according to claim 1, wherein the radially inwardly positioned section of the rotor vanes has substantially a constant width across a length of the radially inwardly positioned section.
- [c12] 12. The oscillating motor according to claim 1, wherein the stator vanes have lateral surfaces having a first recess proximal to the end face of the stator vanes, respectively.
- [c13] 13. The oscillating motor according to claim 12, wherein the stator has second recesses in a transition area from the lateral surfaces of the stator vanes into the inner wall of the stator.
- [c14] 14. The oscillating motor according to claim 13, wherein the widened sections of the rotor vanes, when the rotor vanes rest in a stop position against the stator vanes, engage the second recesses of the stator.